DEPARTMENT OF TRANSPORTATION
STATEMENT OF
ADMIRAL JAMES M. LOY, COMMANDANT, U.S. COAST GUARD
AND
JOHN E. GRAYKOWSKI, ACTING ADMINISTRATOR, U.S. MARITIME ADMINISTRATION
ON THE NEEDS OF THE U.S. MARINE TRANSPORTATION SYSTEM
BEFORE THE
SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
HOUSE OF REPRESENTATIVES
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Good morning, Mr. Chairman and distinguished members of the Subcommittee, we are, respectively, Admiral James M. Loy, Commandant of the U.S. Coast Guard, and John E. Graykowski, the Acting Maritime Administrator. Thank you for providing us the opportunity to present the Department of Transportation's views and answer your questions regarding "The Needs of the U.S. Marine Transportation System," which includes waterways, ports, and their intermodal connections. The interest of this Subcommittee in these issues is a most positive indicator of their importance.

The waterways, ports, and intermodal connections in this country are critical to our national transportation system and ultimately the national interest. In particular, our marine infrastructure facilitates our global outreach into overseas markets and our engagement in world affairs, including protection of U.S. national security interests. We must view our waterways, ports, and their intermodal connections as an integrated system.

Earlier this year, under the leadership and direction of Secretary of Transportation Rodney Slater, the Coast Guard has partnered with the Maritime Administration to lead an interagency initiative focused on improving Federal coordination of our Marine Transportation System. As an initial step, we conducted a series of regional listening sessions at seven coastal and inland ports throughout the U.S. Federal representatives from the Coast Guard, Maritime Administration, Saint Lawrence Seaway Development Corporation, National Oceanic and Atmospheric Administration, U.S. Army Corps of Engineers, Environmental Protection Agency, Federal Highway Administration, Federal Railroad Administration, Minerals Management Service, the National Imaging and Mapping Agency, Federal Communications Commission, and U.S. Customs Service attended these sessions and heard the public present their views and thoughts about what is needed.

At the second day of each session, local representatives from industry, labor, environmental interests, state and local governments, and other user groups discussed the current and desired state of the Marine Transportation System. We found these conversations with our customers to be very valuable. We heard good and bad stories about government management of the Marine Transportation System. The output from the listening sessions was a list of issues and imperatives to improve the Marine Transportation System in the areas of safety, security, global competitiveness, infrastructure, and environmental protection. The Secretary will hold a national conference scheduled for this November where we will try to coalesce these issues.

Let us begin by highlighting the importance, diversity, and value of our Marine Transportation System. America's marine transportation system annually moves cargo worth approximately one trillion dollars. It contributes over 78 billion dollars to the gross domestic product and generates 16 million jobs. For example, the livelihood of farmers in our heartland depends on low cost and efficient marine transportation. They rely on the capacity and efficiency of the inland rivers and connecting coastal ports to deliver their products overseas. Ten million barrels of crude oil and petroleum products are imported daily; except for Canadian pipeline deliveries, nearly all of this is shipped by water through our coastal and inland

waterways. The economic and potential environmental implications of these daily operations are significant.

There are 355 ports in the United States; 150 of these ports account for 99 percent of cargo tonnage water. Ports are inland and coastal intermodal transportation centers where cargo is transferred to and from ships, barges, railcars, trucks, pipelines, and even planes. These multimodal facilities link our nation to global markets.

By tonnage, 95 percent of all U.S. overseas trade and 13 percent of our intercity domestic trade move by water. As the world's largest trading nation, the United States' exports account for 14 percent of the world's oceanborne trade with 4.5 billion metric tons exported annually by water.

Our ports and waterways are already crowded and the pace of activity is picking up. For example: tens of millions of Americans use the nation's 20 million recreational boats and frequent our thousands of miles of beaches and wetlands; ferries, cruise ships, gaming, and tour vessels serve 90 million passengers annually; and over 26,000 commercial fishing vessels harvest food from the sea.

During the Persian Gulf War, 95 percent of the materiel and supplies for U.S. forces were provided via the U.S. Marine Transportation System. At the height of the buildup over 200 supply ships were engaged. Delays in mobilization translate directly to increased loss of life and diminished opportunity to project force in support of national security objectives.

Our Marine Transportation System infrastructure is stressed and that stress is continuously increasing, as reflected by the following trends:

World population growth, which is forecast to increase by 50 percent in the next 20 years, is creating increased demands on the system. The volume of international maritime trade will increase 200 to 300 percent - to between 9 and 13 billion metric tons annually - due to both population increase and increasing globalization of the world economy.

Significant shifts in waterborne trade patterns have occurred. Manufacturing-on-demand and total-asset-visibility across modes are becoming the norm to meet the pressures imposed by shippers in today's business climate. Technology supporting manufacturing and logistics has accelerated these trends.

Electronic data exchange and virtually unlimited communications between manufacturers, consumers, intermediaries, and governments will facilitate the flow of goods and services worldwide and promote competition. Price competition among global manufacturers will continue to pressure the transportation system for faster, safer, cheaper, and more reliable point-to-point service.

Narrow waterways designed for smaller vessels must now accommodate larger ships with smaller margins of safety. A large ship navigating these channels often requires higher risk shiphandling, inefficient one-way traffic, or in some cases, a safety zone or perimeter maintained throughout the transit which limits other vessels' use of the waterway. These restrictions directly result in delay, increased cost, and decreased throughput for the Marine Transportation System.

New "megaships" carrying over 6,000 20-foot container equivalent units (TEUs), and passenger ships with 3,000 passengers currently being designed and built will strain waterways and landside infrastructure, including the rail and highway connections. Just this month, the REGINA MAERSK, a Danish-flagged vessel, and one of the largest container ships in the world, visited the Port of New York. Unfortunately, because of its deep draft, the vessel cannot safely maneuver in New York Harbor without first unloading containers at the Port of Halifax and then waiting to enter the waterway at high tide. The ship's visit sends a clear message about the need to continue efforts to access and upgrade appropriate U.S.

ports to accommodate such large vessels in order to remain competitive. Few U.S. ports have the 50-foot or deeper channels required for the largest container ships and bulk carriers. Deepwater ports in Canada, or in Freeport, Bahamas, therefore, may become more attractive than their U.S. counterparts to deep-draft vessels.

Poor intermodal connections at our port terminals cause urban congestion, slow commerce, decrease capacity or throughput, and impact the environment.

Our marine terminals are vulnerable to smuggling, theft, and acts of terrorism and sabotage. In fiscal year 1997, the U.S. Customs Service seized 49,260 lbs. of cocaine hidden in commercial cargo. Auto theft is the most costly property crime in the U.S., totaling $7.6 billion per year. This crime results in increased prices of consumer goods and auto insurance rates. Of the 1.5 million vehicles that are stolen each year, almost one-third (480,000) are exported.

Passenger vessel service is growing rapidly in many regions. High-speed ferry service is growing at 12 percent annually. While providing relief to highway congestion and reducing pollution, high-speed ferries offer new safety and environmental challenges for many already congested waterways. The recently enacted Transportation Equity Act of 1998 (TEA-21) recognized this potential, providing funding for ferries as well as requiring a study for increased ferry transportation in the U.S.

A few of our ports have vessel traffic services that depend on a traffic center monitoring instruments and radios. They effectively reduce casualty risk, but they have limited capability and are resource-intensive. Ports need to install more vessel traffic services based upon automated information systems and tailored to the needs of each specific location.

The Coast Guard's Maritime Differential Global Positioning System (DGPS) has become a critical component of the Nation's intermodal radionavigation system, enhancing maritime safety within harbor approaches and transits. Mariners are rapidly transitioning to Maritime DGPS-assisted navigation because of its reliability and accuracy. The Coast Guard also operates and maintains the United States' domestic Loran-C radionavigation system that provides the maritime community with a reliable offshore, nearshore, and harbor navigational safety system. These systems also have extensive applications in other transportation modes, such as trucking, rail, aviation, and automobile navigation.

The National Distress System is the frontline communications interface with the recreational boater and the maritime industry. The National Distress System provides mariners calling and distress capabilities to save lives and property by contacting either vessels in their vicinity or the local Coast Guard rescue unit. The Coast Guard is exploring options for modernizing the National Distress System.

The Coast Guard's buoy tender fleet and aids-to-navigation system provide the visual aids relied upon by mariners to safely navigate harbor entrances, river systems, and confined waterways. The Coast Guard maintains more than 50,000 aids-to-navigation, including buoys, lighthouses, daymarks, and radionavigation signals along the nation's waterways. In addition, the Coast Guard's newest buoy tenders also feature enhanced spill response capabilities. The JUNIPER class seagoing buoy tenders, equipped with the Spilled Oil Recovery System (SORS), and the IDA LEWIS class coastal buoy tenders capable of deploying the Vessel of Opportunity Skimming System (VOSS), can rapidly respond to oil spills until commercial assets arrive on scene, and augment those commercial assets as necessary.

The Ports and Waterways Safety System (PAWSS) is a critical tool which will contribute significantly to enhancing the safety and efficiency of this nation's ports and waterways. One of the key technologies of PAWSS is a low-cost Automatic Identification System (AIS). AIS

technology will reduce the requirement for expanding equipment and manpower-intensive vessel traffic services (VTS) throughout U.S. ports. Using local stakeholder input, the Coast Guard's PAWSS project looks at the entire breadth of waterways management tools available in a port area. When conventional tools such as aids to navigation, vessel traffic separation schemes, ranges, et cetera, are inadequate to ensure the safety of the waterway, an AIS-based VTS will be installed. An innovative development in this process will be the offer of a public/private partnership that would provide local stakeholder input and resources. The Coast Guard's AIS-based VTS system is garnering broad industry support as the Coast Guard works to ensure the ship-to-ship functionality of AIS and embed additional information in the AIS signal, such as the National Oceanic and Atmospheric Administration (NOAA) real-time hydrographic data. Once complete, the Coast Guard's PAWSS project will facilitate safe and efficient transportation of waterborne commerce, which will have a direct impact on the social and economic viability of the nation.

The Maritime Administration (MARAD) is involved in Intelligent Transportation System (ITS) activities seeking ways to apply combinations of technologies, systems, and transportation management concepts to make transportation more efficient and safe. Through the application of technologies and institutional arrangements to the transportation modes, and to metropolitan as well as rural areas, ITS is envisioned to evolve over the next 20 years. MARAD is advocating greater utilization of ITS to address challenges we face in improving safety, security, productivity and general mobility in spite of increasing congestion, as well as combat pilferage and theft. Several ITS programs involving partnerships between the government and the private sector are already in place. For example, MARAD sponsors the Cargo Handling Cooperative Program (CHCP), a collaborative effort between government and the transportation industry to help develop the use of new technologies for transportation needs. For example, prototype equipment allows unmanned vehicles to conduct shipboard inventories on containers and chassis. Hand-held computer technology is available to streamline data collection and transmission during shipboard loading and unloading operations. A prototype video container recognition system to track containers in and out of marine terminals is currently operational in the United States, and provides for a high volume of accurate transactions in a paperless environment.

Additionally, MARAD and the United States Transportation Command (USTRANSCOM) jointly administer the Center for the Commercial Deployment of Transportation Technologies (CCDoTT). CCDoTT is a partnership between industry, academia, and the Government to improve commercial and defense transportation systems by combining relevant capabilities, resources, and technologies. The focus of CCDoTT is to speed the movement of commercial and military cargoes in an integrated end-to-end environment, and to enhance U.S. global rapid-response capabilities while boosting U.S. economic growth through increased productivity, competitiveness, and balance of trade.

The Coast Guard and Maritime Administration are not alone in the marine transportation arena. Under their separate traditional mandates, agencies such as the Saint Lawrence Seaway Development Corporation, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, Environmental Protection Agency, U.S. Customs Service, and others have worked toward developing facets of a waterways infrastructure and management system. Other agencies, such as the Federal Highway Administration, Federal Transit Administration, Research and Special Programs Administration, National Imaging and Mapping Agency, Minerals Management Service, and Federal Railroad Administration have worked toward the development of ports and improving highway, rail, and pipeline access to them. While multiagency cooperation takes place on specific projects or issues, historically there has been no systematic, broad-based joint initiatives on marine transportation.

For example, in the area of safety alone, the Coast Guard installs navigation aids and systems; and monitors, informs, directs, and controls waterway transits as needed on a daily basis.

However, the Coast Guard shares responsibility and authority with the U.S. Army Corps of Engineers, which deepens and maintains navigable channels. Equally important, the National Oceanic and Atmospheric Administration surveys U.S. waters, publishes charts, and disseminates weather, current and tidal information. Combined, these make up key elements of safety.

We have recently made inroads in advancing interagency coordination for the planning and development of systems and infrastructure through shared research and development efforts. Consider AIS. At the heart of this system are a transponder and a differential global positioning device. AIS provides better delivery of information at less cost than past vessel traffic service surveillance technologies. However, the benefits of AIS can go much further if multiple information sources such as those from the National Oceanic and Atmospheric Administration, U.S. Army Corps of Engineers, Federal Highways Administration, and port authorities are combined with forethought. Electronic charts and real-time weather, current, tide level, and bridge clearance data would improve efficient loading of ships and enhance the safety of ship transits, thereby minimizing the risk of groundings and collisions with bridges or other vertical obstructions. We are committed to pursuing such improvements in a coordinated and cost-effective manner cutting across traditional agency lines.

U.S. waterways, ports, and their intermodal connections are the essential elements of our marine transportation system. The challenge before us is clear. Ports must be prepared to respond to the mounting pressures of growing trade, more noncommercial waterway users, the development of new means to harvest and preserve marine resources, and increasingly aggressive efforts by criminals and adversaries intent on doing societal harm. Our efforts must include eliminating the gaps, overlaps, and stovepipes among government agencies and between those agencies and the private sector. We need to work together if we want the very best marine transportation system possible for the future.

With the leadership of the Department of Transportation, we will have greater interagency coordination at the national, regional, and local levels, we can achieve that vision. We don't have all the answers, but we do have the responsibility to lead, coordinate, facilitate, and even stay out of the way when appropriate to help reach these national goals. But we cannot approach the task alone. The federal government must bring together the private and public elements of the maritime community to discuss the marine transportation system for the 21st century that is essential to America's future prosperity and well-being.

Thank you for the opportunity to appear before you this morning. We'll be happy to answer any questions you may have.